In the Claims:

Please amend claims 1, 6, 9, 11, 15, 17, 22, 25, 27, 30, 33, 36 and 38, and please cancel claims 5, 21 and 32, as indicated below.

1. (Currently amended) A computer system, comprising:

a plurality of devices, each configured to assert a voltage request;

an arbiter configured to receive the voltage requests asserted by the devices, to choose a voltage request and to output the chosen voltage request to one or more power supplies, wherein if any of the voltage requests asserted by the devices specify a voltage that is distinct from the voltage specified by any other of the voltage requests asserted by the devices, the arbiter is configured to choose a highest voltage request from the voltage requests received by the arbiter and to output the chosen voltage request to the one or more power supplies; and

wherein each of the one or more power supplies is configured to receive the chosen voltage request and to provide a voltage that corresponds to the chosen voltage request to the devices such that the devices receive the same supply voltage.

2. (Previously presented) The computer system of claim 1, wherein the devices comprise a processor.

3. (Original) The computer system of claim 1, wherein each of the voltage requests comprises a voltage identification (VID) code.

4. (Original) The computer system of claim 1, wherein if only one device in the computer system is configured to assert a voltage request, the arbiter is further configured to choose that one device's voltage request.

5. (Canceled)

6. (Currently amended) ~~The~~ A computer system ~~of claim 1~~, comprising:

a plurality of devices, each configured to assert a voltage request;

an arbiter configured to receive the voltage requests asserted by the devices, to choose a voltage request and to output the chosen voltage request to one or more power supplies, wherein if any of the voltage requests asserted by the devices specify a voltage that is distinct from the voltage specified by any other of the voltage requests asserted by the devices, the arbiter is configured to choose a voltage request and to output the chosen voltage request to the one or more power supplies; and

wherein each of the one or more power supplies is configured to receive the chosen voltage request and to provide a voltage that corresponds to the chosen voltage request to the devices such that the devices receive the same supply voltage;

wherein the arbiter is further configured to receive a first low power signal indicative of whether the devices should be in a first low power state.

7. (Original) The computer system of claim 6, wherein the arbiter is further configured to choose a first low power voltage request corresponding to a first low power state if the first low power signal indicates that the devices should be in the first low power state.

8. (Previously presented) The computer system of claim 6, wherein the arbiter is further configured to receive a second low power signal indicative of whether the devices should be in a second low power state.

9. (Currently amended) ~~The~~ A computer system ~~of claim 1~~, comprising:

a plurality of devices, each configured to assert a voltage request;

an arbiter configured to receive the voltage requests asserted by the devices, to choose a voltage request and to output the chosen voltage request to one or more power supplies, wherein if any of the voltage requests asserted by the devices specify a voltage that is distinct from the voltage specified by any other of the voltage requests asserted by the devices, the arbiter is configured to choose a voltage request and to output the chosen voltage request to the one or more power supplies; and

wherein each of the one or more power supplies is configured to receive the chosen voltage request and to provide a voltage that corresponds to the chosen voltage request to the devices such that the devices receive the same supply voltage;

wherein the arbiter is further configured to receive one or more power supply signals indicative of whether the one or more power supplies are functioning properly.

10. (Original) The computer system of claim 9, wherein the arbiter is further configured to choose a low power voltage request corresponding to a low power state if any of the power supply signals indicate that any of the power supplies are not functioning properly.

11. (Currently amended) ~~The~~ A computer system ~~of claim 1~~, comprising:

a plurality of devices, each configured to assert a voltage request;

an arbiter configured to receive the voltage requests asserted by the devices, to choose a voltage request and to output the chosen voltage request to one or more power supplies, wherein if any of the voltage requests asserted by the devices specify a voltage that is distinct from the voltage specified by any other of the voltage requests asserted by the devices, the arbiter is configured to choose a voltage request and to output the chosen voltage request to the one or more power supplies; and

wherein each of the one or more power supplies is configured to receive the chosen voltage request and to provide a voltage that corresponds to the chosen voltage request to the devices such that the devices receive the same supply voltage;

wherein the arbiter is further configured to receive a plurality of device present signals indicative of whether each of the devices are present in the computer system.

12. (Original) The computer system of claim 11, wherein the arbiter is further configured to choose a low power voltage request corresponding to a low power state if the plurality of device present signals indicate that none of the devices are present.

13. (Original) The computer system of claim 11, wherein the arbiter is further configured to choose a first voltage request asserted by a first device if the plurality of device present signals indicate that the first device is the only one of the devices present in the computer system.

14. (Original) The computer system of claim 1, wherein the one or more power supplies comprises one or more voltage regulators.

15. (Currently amended) ~~The~~ A computer system ~~of claim 14~~, <u>comprising:</u>

<u>a plurality of devices, each configured to assert a voltage request;</u>

<u>an arbiter configured to receive the voltage requests asserted by the devices, to choose a voltage request and to output the chosen voltage request to one or more power supplies, wherein if any of the voltage requests asserted by the devices specify a voltage that is distinct from the voltage specified by any other of the voltage requests asserted by the devices, the arbiter is configured to choose a voltage request and to output the chosen voltage request to the one or more power supplies; and</u>

<u>wherein each of the one or more power supplies is configured to receive the chosen voltage request and to provide a voltage that corresponds to the chosen voltage request to the devices such that the devices receive the same supply voltage;</u>

<u>wherein the one or more power supplies comprises one or more voltage regulators, wherein the one or more voltage regulators comprises one or more voltage regulator modules configured to receive a VID code as an input and to provide a corresponding voltage in response to receiving the VID code.</u>

16. (Previously presented) The computer system of claim 1, wherein the arbiter comprises a programmable logic device (PLD) configured to receive the voltage requests, to choose the chosen voltage request and to output the chosen voltage request.

17. (Currently amended) A method for arbitrating voltage requests in a computer system, comprising:

asserting the voltage requests from devices each configured to receive a voltage;

receiving the voltage requests;

choosing a voltage request;

outputting the chosen voltage request to one or more voltage regulators;

providing a chosen voltage to the devices from the one or more voltage regulators such that the devices receive the same chosen voltage, wherein the chosen voltage corresponds to the chosen voltage request;

wherein said choosing comprises choosing <u>as</u> a chosen voltage request <u>a highest voltage request from the voltage requests received</u> if any of the voltage requests asserted from the devices specify a voltage that is distinct from the voltage specified by any other of the voltage requests asserted from the devices.

18. (Previously presented) The method of claim 17, wherein the devices comprise a processor.

19. (Original) The method of claim 17, wherein each of the voltage requests comprises a VID code.

20. (Previously presented) The method of claim 17, further comprising:

receiving a voltage request from only one device; and

wherein said choosing comprises choosing the voltage request from the one device.

21. (Canceled)

22. (Currently amended) ~~The~~ A method ~~of claim 17~~ for arbitrating voltage requests in a computer system, ~~further~~ comprising:

    asserting the voltage requests from devices each configured to receive a voltage;

    receiving the voltage requests;

    receiving a first low power signal indicative of whether the devices should be in a first low power state;

    choosing a voltage request;

    outputting the chosen voltage request to one or more voltage regulators;

    providing a chosen voltage to the devices from the one or more voltage regulators such that the devices receive the same chosen voltage, wherein the chosen voltage corresponds to the chosen voltage request;

    wherein said choosing comprises choosing a chosen voltage request if any of the voltage requests asserted from the devices specify a voltage that is distinct from the voltage specified by any other of the voltage requests asserted from the devices.

23. (Original) The method of claim 22, wherein said choosing further comprises choosing a first low power voltage request corresponding to the first low power state if the first low power signal indicates that the devices should be in the first low power state.

24. (Previously presented) The method of claim 22, further comprising receiving a second low power signal indicative of whether the devices should be in a second low power state.

25. (Currently amended) ~~The~~ A method ~~of claim 17~~ for arbitrating voltage requests in a computer system, ~~further~~ comprising:

      asserting the voltage requests from devices each configured to receive a voltage;

      receiving the voltage requests;

      receiving one or more voltage regulator signals indicative of whether ~~the~~ one or more voltage regulators are functioning properly;

      choosing a voltage request;

      outputting the chosen voltage request to the one or more voltage regulators;

      providing a chosen voltage to the devices from the one or more voltage regulators such that the devices receive the same chosen voltage, wherein the chosen voltage corresponds to the chosen voltage request;

      wherein said choosing comprises choosing a chosen voltage request if any of the voltage requests asserted from the devices specify a voltage that is distinct from the voltage specified by any other of the voltage requests asserted from the devices.

26. (Original) The method of claim 25, wherein said choosing further comprises choosing a low power voltage request corresponding to a low power state if any of the voltage regulator signals indicate that any of the voltage regulators are not functioning properly.

27. (Currently amended) ~~The~~ A method ~~of claim 17~~ for arbitrating voltage requests in a computer system, ~~further~~ comprising:

asserting the voltage requests from a plurality of devices each configured to receive a voltage;

receiving the voltage requests;

receiving a plurality of device present signals indicative of whether each of ~~a~~ the plurality of devices are present in the computer system;

choosing a voltage request;

outputting the chosen voltage request to one or more voltage regulators;

providing a chosen voltage to the devices from the one or more voltage regulators such that the devices receive the same chosen voltage, wherein the chosen voltage corresponds to the chosen voltage request;

wherein said choosing comprises choosing a chosen voltage request if any of the voltage requests asserted from the devices specify a voltage that is distinct from the voltage specified by any other of the voltage requests asserted from the devices.

28. (Original) The method of claim 27, wherein said choosing further comprises choosing a low power voltage request corresponding to a low power state if the plurality of device present signals indicate that none of the devices are present.

29. (Original) The method of claim 27, wherein said choosing further comprises choosing a first voltage request asserted by a first device if the plurality of device present

signals indicate that the first device is the only one of the devices present in the computer system.

30. (Currently amended) A voltage request arbiter, comprising:

an input stage configured to receive a plurality of voltage requests from a plurality of devices; and

an arbitration stage coupled between the input stage and an output stage, wherein the arbitration stage is configured to chose a voltage request, wherein if any of the plurality of voltage requests specify a voltage that is distinct from the voltage specified by any other of the plurality of voltage requests, the arbitration stage is configured to choose as a chosen voltage request a highest voltage request from the voltage requests from the devices; and

the output stage configured to assert the chosen voltage request to one or more voltage regulators that provide one or more of the devices with a chosen voltage specified by the chosen voltage request such that the devices receive the same chosen voltage.

31. (Original) The voltage request arbiter of claim 30, wherein each of the voltage requests comprises a VID code.

32. (Canceled)

33. (Currently amended) The A voltage request arbiter of claim 30, comprising:

an input stage configured to receive a plurality of voltage requests from a plurality of devices, wherein the input stage is further configured to receive a first low power signal indicative of whether the devices should be in a first low power state; and

an arbitration stage coupled between the input stage and an output stage, wherein the arbitration stage is configured to chose a voltage request, wherein if any of the plurality of voltage requests specify a voltage that is distinct from the voltage specified by any other of the plurality of voltage requests, the arbitration stage is configured to choose a chosen voltage request; and

the output stage configured to assert the chosen voltage request to one or more voltage regulators that provide one or more of the devices with a chosen voltage specified by the chosen voltage request such that the devices receive the same chosen voltage.

34. (Original) The voltage request arbiter of claim 33, wherein the arbitration stage is further configured to choose a first low power voltage request corresponding to a first low power state if the first low power signal indicates that the devices should be in the first low power state.

35. (Original) The voltage request arbiter of claim 33, wherein the input stage is further configured to receive a second low power signal indicative of whether the devices should be in a second low power state.

36. (Currently amended) ~~The~~ A voltage request arbiter ~~of claim 30~~, comprising:

an input stage configured to receive a plurality of voltage requests from a plurality of devices, wherein the input stage is further configured to receive one or more voltage regulator signals indicative of whether ~~the~~ one or more voltage regulators are functioning properly; and

an arbitration stage coupled between the input stage and an output stage, wherein the arbitration stage is configured to chose a voltage request, wherein if any of the plurality of voltage requests specify a voltage that is distinct

from the voltage specified by any other of the plurality of voltage requests, the arbitration stage is configured to choose a chosen voltage request; and

the output stage configured to assert the chosen voltage request to one or more of the voltage regulators that provide one or more of the devices with a chosen voltage specified by the chosen voltage request such that the devices receive the same chosen voltage.

37. (Original) The voltage request arbiter of claim 36, wherein the arbitration stage is further configured to choose a low power voltage request corresponding to a low power state if any of the voltage regulator signals indicates that any of the voltage regulators are not functioning properly.

38. (Currently amended) The A voltage request arbiter of claim 30, comprising:

an input stage configured to receive a plurality of voltage requests from a plurality of devices, wherein the input stage is further configured to receive a plurality of device present signals indicative of whether the plurality of devices is present; and

an arbitration stage coupled between the input stage and an output stage, wherein the arbitration stage is configured to chose a voltage request, wherein if any of the plurality of voltage requests specify a voltage that is distinct from the voltage specified by any other of the plurality of voltage requests, the arbitration stage is configured to choose a chosen voltage request; and

the output stage configured to assert the chosen voltage request to one or more voltage regulators that provide one or more of the devices with a chosen voltage specified by the chosen voltage request such that the devices receive the same chosen voltage.

39. (Original) The voltage request arbiter of claim 38, wherein the arbitration stage is further configured to choose a low power voltage request corresponding to a low power state if the plurality of device present signals indicate that none of the devices are present.

40. (Original) The voltage request arbiter of claim 38, wherein the arbitration stage is further configured to choose a first voltage request from a first device if the plurality of device present signals indicate that the first device is the only one of the devices present.